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## ABSTRACT

This is one of a series of computer modules designed for use by secondary students. This module contains a simulation of a cash register, student instructions and worksheets, and the STORE program and related data programs and subroutines. The module will require one fifty-minute class period per student, spent at the computer. Also included in the module are worksheets, a statement of objectives, and teaching suggestions. (MK)

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COMPUTER MODULE FOR USE  
IN A  
MATHEMATICS LABORATORY SETTING

STORE

by

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Dr. Ruth I. Hoffman, Director

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The module may be used in the following ways.

1. It may be used by individuals or pairs of students.
2. Individual students who have successfully completed the module may assist other students, especially in handling the computer portions of the module. Thus, this module can be used concurrently with other individual projects.

### MATERIALS

Contained in the module:

1. Student instructions and worksheets.
2. The STORE program, along with related data programs and subroutines.

Teacher must provide:

1. Computer access
2. Occasional updates of the program data.

### TIME SCHEDULE

It is expected that this module will require one fifty-minute class period per student, spent at the computer. Manual filling-out of the worksheets could be done as homework.



### OBJECTIVES

- .The student will come into contact with realistic foodstore prices.

- .The student will learn some of the procedures of a cash register clerk, such as making change, totalling cash register amounts, etc.
- .The student will learn how sales tax for food and non-food items is computed.
- .The student will learn some of the procedures of a food store inventory clerk, in keeping track of products and ordering.
- .The student will be introduced to the concept of meeting a budget.
- .The student will exhibit arithmetic skills in disguised drill.



### OVERVIEW

This module is actually a simulation of a cash register. The STORE program does essentially all the things which a cash register does, totalling sales, indicating change, etc. In addition, the program does some things most cash registers don't do: it figures sales tax, keeps track of inventory, etc. There are cash registers, in some of the major department stores, which have already taken over inventory responsibilities; this is probably a trend of the future.

### EVALUATION PROCEDURE

No posttest should be required for this module.

The student will turn in his completed worksheets, along with his computer output. He will previously have checked these himself for discrepancies.

The student may be penalized for serious errors in his own calculations, but should not be penalized for errors in using the computer program. If necessary, he should be required to rerun the program. Errors of one cent or so should be regarded as insignificant since they may be attributable to computer round off methods.

## OUTLINE



- A. The cards #1 - 6 and student worksheets #6a - 6e are virtually self-explanatory.
- B. Teaching Suggestions
  1. Alert students will want to know why such items as Kleenex appear under both food and non-food headings. This information is authentic. The category of an item in a grocery store is determined by which department of the store orders and stocks the item.
  2. The program is written in the Fortran computer language, and format requirements will cause the most trouble in running the program. Fortran is designed for IBM card input, and every space is meaningful. It is essential that a number be in the right space. For this reason, the student is instructed to input item numbers in a four-space field: 3 is 0003 or blank-blank-blank-three; 24 is 0024. If he doesn't do this results will be extremely in error, or even overflow the program, resulting in meaningless output. When an item is purchased by the pound, the number of pounds should be indicated as

follows: Item number (four-space field), two spaces, and the decimal equivalent of the number of pounds, always including a decimal point. This is explained in the worksheet instructions, and it must be followed exactly.

(It should be made clear to the students that they need only input, for the program, the item number of the product they are buying and, in the case of products bought by the pound, the number of pounds, according to the format given above.)

This whole area is one in which students who have completed the module can be very helpful to those that follow.

3. In the interest of verisimilitude, the data in the program should be periodically updated, reflecting changes in actual prices. Students could secure revised data as fieldwork; and, optionally, for the last worksheet, students could be sent to an actual supermarket, to see how much they could get for a specified amount of money.
- The method of updating the data on the computer will vary from system to system, but on most systems it should present no difficulty.
4. The Student Worksheet #6e may be done in conjunction with a field trip.

This unit will acquaint you with the operation of a grocery store. As a buyer, you will be exposed to purchasing, to buying items which are priced by the pound, and to the difference between the sales tax on food and non-food items. You will see how a sales clerk operates a cash register. You will be exposed to the problems of an inventory clerk - - ordering and stocking. And you will be given a sample exercise in budgeting your grocery expenses.

The next pages contain a list of the items available at "COMPUTER DISCOUNT FOODS". They are divided into four categories: Groceries, Meats, Produce, and Non-Food Items. The sales tax, in Denver, on food items is 3% and on non-foods, it is 6%. Meats and Produce are sold by the pound. (Produce, basically, is fresh fruits and vegetables.)

The information on the next pages is divided into six columns. The first column contains the item number of each commodity. The second indicates whether the item is a grocery, meat, produce, or a non-food item. The third column is the name of the product; the fourth column is its price. The last two columns show the maximum and minimum amounts of each item kept in stock. Thus, for example, potato chips: 90 bags are the most kept in stock; when the number of bags drops below 15, it is time to order some more. If there were only 14 bags left, the stock clerk would order  $90-14=76$  bags — that is, enough to bring the total back to 90.

## GROCERIES

THE SALES TAX IS 3%

| ITM# | DPT | ITEM                 | PRICE     |     |     |
|------|-----|----------------------|-----------|-----|-----|
| 4    | GR  | Campbell's Soup      | .23 each  | 15  | 5   |
| 5    | GR  | Wonder Bread         | .60 each  | 18  | 5   |
| 6    | GR  | Sintons 2 1/2 Qt.    | .73 each  | 49  | 9   |
| 7    | GR  | Caravelle            | .09 each  | 94  | 9   |
| 8    | GR  | Snails Escargot - 12 | 1.83 each | 47  | 20  |
| 9    | GR  | Canada Dry Gin-ale   | .65 each  | 797 | 200 |
| 10   | GR  | Milk                 | .69 each  | 90  | 15  |
| 11   | GR  | Potato Chips         | .49 each  | 90  | 15  |
| 12   | GR  | Cookies              | .77 each  | 90  | 15  |
| 13   | GR  | Cheddar Cheese       | .65 each  | 90  | 15  |
| 14   | GR  | Crackers             | .77 each  | 90  | 15  |
| 15   | GR  | Welch's Jam          | .69 each  | 90  | 15  |
| 16   | GR  | Del Monte Corn       | .29 each  | 90  | 15  |
| 17   | GR  | Sigman's Bologna     | .29 each  | 90  | 15  |
| 18   | GR  | Hostess Twinkies     | .16 each  | 90  | 15  |
| 19   | GR  | 6-Bottle Deposit     | .30 each  | 89  | 15  |
| 20   | GR  | Bounty               | .43 each  | 98  | 15  |
| 21   | GR  | Sugar                | .59 each  | 99  | 15  |
| 22   | GR  | Flour                | .43 each  | 99  | 15  |
| 23   | GR  | Graham Crackers      | .65 each  | 99  | 15  |
| 24   | GR  | Cookies              | .42 each  | 99  | 15  |
| 25   | GR  | Fig Bars             | .37 each  | 99  | 15  |
| 26   | GR  | Charmin              | .43 each  | 98  | 15  |
| 27   | GR  | Cake Mix             | .30 each  | 98  | 15  |
| 28   | GR  | Frosting             | .41 each  | 99  | 15  |
| 29   | GR  | Corn Oil             | .96 each  | 99  | 15  |
| 30   | GR  | Pears                | .22 each  | 99  | 15  |
| 31   | GR  | Mr. Clean            | .96 each  | 99  | 15  |
| 32   | GR  | Blu-Boy              | .79 each  | 99  | 15  |
| 33   | GR  | Kunners Ketchup      | .27 each  | 99  | 15  |
| 34   | GR  | Betty Crkr. Frsting  | .41 each  | 99  | 15  |

## MEATS

THE SALES TAX IS 3%

|    |    |                |           |    |    |
|----|----|----------------|-----------|----|----|
| 35 | MT | Hamburger      | .90 /lb.  | 90 | 15 |
| 36 | MT | Sirloin Steaks | 1.89 /lb. | 90 | 15 |
| 37 | MT | N.Y. Steak     | 2.39 /lb. | 99 | 15 |
| 38 | MT | Top Sirloin    | 2.59 /lb. | 99 | 15 |
| 39 | MT | Sirloin        | 1.69 /lb. | 99 | 15 |
| 40 | MT | Filet          | 2.98 /lb. | 99 | 15 |
| 41 | MT | T-bone         | 1.89 /lb. | 99 | 15 |
| 42 | MT | Rd. Steak      | 1.49 /lb. | 99 | 15 |
| 43 | MT | Rib Eye        | 2.35 /lb. | 99 | 15 |
| 44 | MT | Cube Steak     | 1.49 /lb. | 99 | 15 |
| 45 | MT | Chicken        | .59 /lb.  | 89 | 15 |
| 46 | MT | Turkey         | .95 /lb.  | 99 | 15 |
| 47 | MT | Ham Hocks      | .89 /lb.  | 99 | 15 |
| 48 | MT | Shank Ham      | .89 /lb.  | 99 | 15 |
| 49 | MT | Ham            | .98 /lb.  | 99 | 15 |
| 50 | MT | Rib Roast      | 1.49 /lb. | 99 | 15 |
| 51 | MT | Sausage        | q.89 /lb. | 99 | 15 |
| 52 | MT | Liver          | 1.29 /lb. | 99 | 15 |
| 53 | MT | Bacon          | 1.39 /lb. | 99 | 15 |
| 54 | MT | Rump Roast     | 1.19 /lb. | 99 | 15 |
| 55 | MT | Pearch         | 1.10 /lb. | 99 | 15 |
| 56 | MT | Lamb Chop      | 2.19 /lb. | 99 | 15 |
| 57 | MT | Spare Rib      | 1.49 /lb. | 99 | 15 |
| 58 | MT | Veal Outlet    | 2.25 /lb. | 99 | 15 |
| 59 | MT | Kidneys        | 1.19 /lb. | 99 | 15 |
| 60 | MT | Hot Dogs       | .98 /lb.  | 99 | 15 |

## PRODUCE

THE SALES TAX IS 3%

|    |    |            |          |    |    |
|----|----|------------|----------|----|----|
| 61 | PR | Potatoes   | .17 /lb. | 90 | 15 |
| 62 | PR | Lettuce    | .39 /lb. | 90 | 15 |
| 63 | PR | Apples     | .25 /lb. | 90 | 15 |
| 64 | PR | Apples     | .23 /lb. | 20 | 50 |
| 65 | PR | Oranges    | .29 /lb. | 91 | 15 |
| 66 | PR | Grapes     | .49 /lb. | 90 | 15 |
| 67 | PR | Watermelon | .49 /lb. | 25 | 20 |
| 68 | PR | Canteloupe | .25 /lb. | 90 | 15 |
| 69 | PR | Lettuce    | .33 /lb. | 90 | 15 |
| 70 | PR | Cabbage    | .18 /lb. | 25 | 15 |
| 71 | PR | Corn       | .10 /lb. | 25 | 25 |
| 72 | PR | Radish     | .14 /lb. | 25 | 5  |
| 73 | PR | Green Bean | .69 /lb. | 90 | 15 |
| 74 | PR | Mushrooms  | .99 /lb. | 90 | 15 |
| 75 | PR | Peaches    | .43 /lb. | 90 | 15 |
| 76 | PR | Carrots    | .21 /lb. | 90 | 15 |
| 77 | PR | Artichokes | .30 /lb. | 90 | 15 |
| 78 | PR | Avocodoes  | .26 /lb. | 90 | 15 |
| 79 | PR | Bannanas   | .27 /lb. | 90 | 15 |
| 80 | PR | Cucumber   | .33 /lb. | 25 | 5  |
| 81 | PR | Tomato     | .29 /lb. | 25 | 25 |
| 82 | PR | Potato     | .31 /lb. | 25 | 5  |
| 83 | PR | Onions     | .26 /lb. | 90 | 15 |
| 84 | PR | Celery     | .34 /lb. | 90 | 15 |
| 85 | PR | Pears      | .33 /lb. | 90 | 15 |
| 86 | PR | Plums      | .29 /lb. | 90 | 20 |
| 87 | PR | Grapefruit | .31 /lb. | 25 | 25 |
| 88 | PR | Squash     | .24 /lb. | 90 | 15 |
| 89 | PR | Pumpkin    | .04 /lb. | 90 | 15 |
| 90 | PR | Okra       | .59 /lb. | 90 | 15 |

## NON-FOODS

THE SALES TAX IS 6%

|     |    |                    |           |    |    |
|-----|----|--------------------|-----------|----|----|
| 91  | NF | Tide Detergent     | 1.23 each | 89 | 15 |
| 92  | NF | Cascade            | .49 each  | 99 | 15 |
| 93  | NF | Joy Dish Whg. Dtg. | .83 each  | 99 | 14 |
| 94  | NF | Ajax Detergent     | .89 each  | 99 | 15 |
| 95  | NF | Downy Softener     | 1.57 each | 99 | 15 |
| 96  | NF | Clorox Bleach      | .35 each  | 99 | 15 |
| 97  | NF | Tide Detergnt      | .49 each  | 89 | 15 |
| 98  | NG | Paper Towels       | .39 each  | 89 | 15 |
| 99  | NF | Kleenex            | .33 each  | 88 | 15 |
| 100 | NF | Playboy Mag        | 1.00 each | 86 | 15 |

To buy from COMPUTER DISCOUNT FOODS, you must input the item number of each purchase. As the store might stock up to 9,999 items, four digits are allowed for item numbers; this must be allowed for when you record a purchase. Thus, item No. 4, Campbell's Soup, must be inputted as 0004; No. 25, sugar, must be inputted as 0025 (blanks may be substituted for leading zeroes).

If an item is priced by the pound, you must also input the number of pounds you buy. This number must be a decimal number, and it must include the decimal point. Space two after the item number, and then put in the number of pounds. Thus, if you bought 1 1/2 pounds of hamburger, you would input 0041, two spaces, 1.5. If you bought one pound of cabbage, item No. 76, you would input 0076, space two, 1.0.

If you do all this properly, COMPUTER will record each item and its price, and total your shopping list.

There are three special commands to input instead of grocery item numbers:

- 0003 will total any particular purchase.
- 0002 indicates a refund (bottle returns, coupons, etc.)
- 0001 closes the cash register for the day.

When your shopping list is through, always input 0003 before 0001.

The cash register in the STORE program starts with a thousand dollars in it. It makes change automatically. If you are a clerk, you need to know how much money is left in the register at the end of the day. (No provision is made in the program for armed robbery.)

You shop at COMPUTER and buy the following:

- 2 cans Campbell's soup
- 1 package Hostess Twinkies
- 1-1/4 pounds hamburger
- 1 pounds oranges
- 1 package Tide detergent
- 1-1/2 pounds onions
- 1 box Kleenex

Separate this list into food and non-food items and fill out the tables below:

## FOOD ITEMS

| ITEM NO. | ITEM NAME | UNIT PRICE | AMOUNT | TOTAL PRICE |
|----------|-----------|------------|--------|-------------|
| _____    | _____     | _____      | _____  | _____       |
| _____    | _____     | _____      | _____  | _____       |
| _____    | _____     | _____      | _____  | _____       |
| _____    | _____     | _____      | _____  | _____       |
| _____    | _____     | _____      | _____  | _____       |
| _____    | _____     | _____      | _____  | _____       |

## NON-FOOD ITEMS

| ITEM NO. | ITEM NAME | UNIT PRICE | AMOUNT | TOTAL PRICE |
|----------|-----------|------------|--------|-------------|
| _____    | _____     | _____      | _____  | _____       |
| _____    | _____     | _____      | _____  | _____       |
| _____    | _____     | _____      | _____  | _____       |

Total Price of all Food Items: \_\_\_\_\_

Sales Tax on Food Items (at 3%): \_\_\_\_\_

Total for all Non-Food Items : \_\_\_\_\_

Sales Tax for Non-Food (at 6%) \_\_\_\_\_

Total Amount Paid: \_\_\_\_\_

You give the clerk a five-dollar bill. How much change do you get back? \_\_\_\_\_

Check your answers on the STORE Program.

Make up a shopping list of your own of from five to ten items.

Use the space below, and separate foods from non-foods.

## FOODS

| <u>No.</u> | <u>Name of Item</u> | <u>Unit Price</u> | <u>Amount</u> | <u>Total Price</u> |
|------------|---------------------|-------------------|---------------|--------------------|
| _____      | _____               | _____             | _____         | _____              |
| _____      | _____               | _____             | _____         | _____              |
| _____      | _____               | _____             | _____         | _____              |
| _____      | _____               | _____             | _____         | _____              |
| _____      | _____               | _____             | _____         | _____              |
| _____      | _____               | _____             | _____         | _____              |
| _____      | _____               | _____             | _____         | _____              |
| _____      | _____               | _____             | _____         | _____              |
| _____      | _____               | _____             | _____         | _____              |

## NON-FOODS

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |

What is the total cost of your food items? \_\_\_\_\_

What is the total cost of non-food items? \_\_\_\_\_

What is the total amount of sales tax  
(for food and non-food)? \_\_\_\_\_

What is the total amount you pay? \_\_\_\_\_

Determine what size bill you give the clerk: \_\_\_\_\_

What is your change? \_\_\_\_\_

Check your answers on the STORE program.

You are a sales clerk at COMPUTER DISCOUNT FOODS. You start with \$1000.00 in your cash register. After ringing up the shopping lists on Student Worksheets # 1 and 2, you close the register for the day. How much money is there now in the register?

In addition to the shopping lists on Student Worksheets # 1 and 2, you have one more customer before you close your cash register for the day. This customer returns two six-pack cartons of bottles, and his bottle deposit is regunded (the deposit is \$.05 per bottle). How much money is there in the register?

Use the next page to make up three short shopping lists. In the second column, indicate whether each item is Grocery, Meat, Produce or Non-Food. If you ring up all three of these sales, how much money will you have in your cash register? (Remember that the sales tax on Non-Foods is 6%, while on everything else it is 3%.)

Use the STORE Program to check your answers. At the end of the program, the computer will indicate what items the store needs to reorder, and how many of each of these items are left. Using the last two columns of the original stock lists, indicate how many of each of these items need to be ordered.

| Number | Item  | Amount Needed |
|--------|-------|---------------|
| _____  | _____ | _____         |
| _____  | _____ | _____         |
| _____  | _____ | _____         |
| _____  | _____ | _____         |
| _____  | _____ | _____         |
| _____  | _____ | _____         |
| _____  | _____ | _____         |
| _____  | _____ | _____         |
| _____  | _____ | _____         |

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| Number | Item  | Amount Needed |
|--------|-------|---------------|
| _____  | _____ | _____         |
| _____  | _____ | _____         |
| _____  | _____ | _____         |
| _____  | _____ | _____         |
| _____  | _____ | _____         |
| _____  | _____ | _____         |
| _____  | _____ | _____         |
| _____  | _____ | _____         |
| _____  | _____ | _____         |

Store

Student Worksheet # 6d

List 1

| No.   | Department | Name  | Unit Price | Amt.  | Price |
|-------|------------|-------|------------|-------|-------|
| _____ | _____      | _____ | _____      | _____ | _____ |
| _____ | _____      | _____ | _____      | _____ | _____ |
| _____ | _____      | _____ | _____      | _____ | _____ |
| _____ | _____      | _____ | _____      | _____ | _____ |
| _____ | _____      | _____ | _____      | _____ | _____ |
| _____ | _____      | _____ | _____      | _____ | _____ |
| _____ | _____      | _____ | _____      | _____ | _____ |
| _____ | _____      | _____ | _____      | _____ | _____ |

Total sales tax \_\_\_\_\_

Total amount spent \_\_\_\_\_

List 2

|       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |

Total sales tax \_\_\_\_\_

Total amount spent \_\_\_\_\_

List 3

|       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |

Total sales tax \_\_\_\_\_

Total amount spent \_\_\_\_\_

You have \$20.00 to spend at COMPUTER DISCOUNT FOODS, to take care of a family of three. Make out a shopping list, trying to spend wisely, and stretching the twenty dollars as far as possible. (Don't forget the sales tax!)

| FOODS    |       |            |        |             |
|----------|-------|------------|--------|-------------|
| ITEM NO. | NAME  | UNIT PRICE | AMOUNT | TOTAL PRICE |
| _____    | _____ | _____      | _____  | _____       |
| _____    | _____ | _____      | _____  | _____       |
| _____    | _____ | _____      | _____  | _____       |
| _____    | _____ | _____      | _____  | _____       |
| _____    | _____ | _____      | _____  | _____       |
| _____    | _____ | _____      | _____  | _____       |
| _____    | _____ | _____      | _____  | _____       |
| _____    | _____ | _____      | _____  | _____       |
| _____    | _____ | _____      | _____  | _____       |
| _____    | _____ | _____      | _____  | _____       |
| _____    | _____ | _____      | _____  | _____       |
| _____    | _____ | _____      | _____  | _____       |
| _____    | _____ | _____      | _____  | _____       |
| _____    | _____ | _____      | _____  | _____       |
| _____    | _____ | _____      | _____  | _____       |
| _____    | _____ | _____      | _____  | _____       |
| _____    | _____ | _____      | _____  | _____       |
| _____    | _____ | _____      | _____  | _____       |
| _____    | _____ | _____      | _____  | _____       |
| _____    | _____ | _____      | _____  | _____       |
| _____    | _____ | _____      | _____  | _____       |
| _____    | _____ | _____      | _____  | _____       |

Total cost of foods \_\_\_\_\_

Sales tax on foods \_\_\_\_\_

## NON-FOODS

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |

Total cost of non foods \_\_\_\_\_

Sales tax on non-foods \_\_\_\_\_

Total amount spent \_\_\_\_\_

Change from \$20.00 \_\_\_\_\_

Use the STORE program to check your answers.

The following 3 programs were written by Terry Garyet of George Washington High School, Denver, Colorado. These programs are suitable to be run on the Univac Fortran system and will probably need modification for other systems.

## BASIC\*DPS003A.STORED DATA

|    |                      |       |     |     |
|----|----------------------|-------|-----|-----|
| 1  | 1                    | .000  | 0   | 0   |
| 2  | 2                    | .000  | 0   | 0   |
| 3  | 3                    | .000  | 0   | 0   |
| 4  | 4CAMPBELL'S SOUP     | .231  | 6   | 5   |
| 5  | 5WONDER BREAD        | .601  | 13  | 5   |
| 6  | 6SINTONS 2% GT.      | .731  | 48  | 9   |
| 7  | 7CARAVELLE           | .091  | 94  | 20  |
| 8  | 8SNAILS ESCABOT-121  | .831  | 47  | 20  |
| 9  | 9CANADA DRY GIN-ALE  | .651  | 797 | 200 |
| 10 | 10MILK               | .691  | 83  | 15  |
| 11 | 11POTATO CHIPS       | .491  | 88  | 15  |
| 12 | 12COOKIES            | .771  | 88  | 15  |
| 13 | 13CHEDDAR CHEESE     | .651  | 89  | 15  |
| 14 | 14CRACKERS           | .771  | 90  | 15  |
| 15 | 15WELCH'S JAM        | .691  | 89  | 15  |
| 16 | 16DEL MONTE CORN     | .291  | 90  | 15  |
| 17 | 17SIGMAN'S BOLOGNA   | .291  | 89  | 15  |
| 18 | 18HOSTESS TWINKIES   | .161  | 88  | 15  |
| 19 | 196-BOTTLE DEPOSIT   | .301  | 89  | 15  |
| 20 | 20BOUNTY             | .431  | 98  | 15  |
| 21 | 21SUGAR              | .591  | 99  | 15  |
| 22 | 22FLOUR              | .431  | 99  | 15  |
| 23 | 23GRAHAM CRACKERS    | .651  | 99  | 15  |
| 24 | 24COOKIES            | .421  | 99  | 15  |
| 25 | 25FIG BARS           | .371  | 98  | 15  |
| 26 | 26CHARMIN            | .431  | 98  | 15  |
| 27 | 27CAKE MIX           | .301  | 96  | 15  |
| 28 | 28FROSTING           | .411  | 98  | 15  |
| 29 | 29CORN OIL           | .961  | 99  | 15  |
| 30 | 30PEARS              | .221  | 97  | 15  |
| 31 | 31MR. CLEAN          | .961  | 99  | 15  |
| 32 | 32BLU-BOY            | .791  | 99  | 15  |
| 33 | 33KUNNERS KETCHUP    | .271  | 98  | 15  |
| 34 | 34BETTY CRER. FRSTNG | .411  | 99  | 15  |
| 35 | 35HAMBURGER          | .902  | 82  | 15  |
| 36 | 36SIRLOIN STEAKS     | 1.892 | 90  | 15  |
| 37 | 37N.Y. STEAK         | 2.392 | 99  | 15  |
| 38 | 38TOP SIRLOIN        | 2.592 | 99  | 15  |
| 39 | 39SIRLOIN            | 1.692 | 99  | 15  |
| 40 | 40FILET              | 2.982 | 98  | 15  |
| 41 | 41T-BONE             | 1.892 | 98  | 15  |
| 42 | 42RD. STEAK          | 1.492 | 99  | 15  |
| 43 | 43RIB EYE            | 2.352 | 99  | 15  |
| 44 | 44CUBE STEAK         | 1.492 | 99  | 15  |
| 45 | 45CHICKEN            | .592  | 87  | 15  |
| 46 | 46TURKEY             | .952  | 98  | 15  |
| 47 | 47HAM HOCKS          | .892  | 99  | 15  |
| 48 | 48SHANK HAM          | .892  | 97  | 15  |

|     |                      |       |    |    |
|-----|----------------------|-------|----|----|
| 49  | 49HAM                | .982  | 96 | 15 |
| 50  | 50RIB ROAST          | 1.492 | 93 | 15 |
| 51  | 51SAUSAGE            | 1.892 | 99 | 15 |
| 52  | 52LIVER              | 1.292 | 99 | 15 |
| 53  | 53BACON              | 1.392 | 98 | 15 |
| 54  | 54RUMP ROAST         | 1.192 | 97 | 15 |
| 55  | 55PEARCE             | 1.102 | 97 | 15 |
| 56  | 56LAMB CHOP          | 2.192 | 95 | 15 |
| 57  | 57SPARE RIB          | 1.492 | 97 | 15 |
| 58  | 58VEAL CUTLET        | 2.252 | 99 | 15 |
| 59  | 59KIDNEYS            | 1.192 | 99 | 15 |
| 60  | 60HOT DOGS           | .982  | 95 | 15 |
| 61  | 61POTATOES           | .173  | 90 | 15 |
| 62  | 62LETTUCE            | .393  | 90 | 15 |
| 63  | 63APPLES             | .253  | 88 | 15 |
| 64  | 64APPLES             | .233  | 0  | 50 |
| 65  | 65ORANGES            | .293  | 89 | 15 |
| 66  | 66GRAPES             | .493  | 88 | 15 |
| 67  | 67WATERMELON         | .493  | 84 | 20 |
| 68  | 68CANTELOUPE         | .252  | 90 | 15 |
| 69  | 69LETTUCE            | .333  | 90 | 15 |
| 70  | 70CABBAGE            | .183  | 25 | 15 |
| 71  | 71CORN               | .103  | 22 | 25 |
| 72  | 72RADISH             | .143  | 25 | 5  |
| 73  | 73GREEN BEAN         | .693  | 90 | 15 |
| 74  | 74MUSHROOMS          | .993  | 90 | 15 |
| 75  | 75PEACHES            | .433  | 90 | 15 |
| 76  | 76CARROTS            | .213  | 90 | 15 |
| 77  | 77ARTICHOKES         | .303  | 90 | 15 |
| 78  | 78AVOCODOKS          | .863  | 90 | 15 |
| 79  | 79BANANAS            | .273  | 90 | 15 |
| 80  | 80CUCUMBER           | .333  | 25 | 5  |
| 81  | 81TOMATO             | .293  | 25 | 25 |
| 82  | 82POTATO             | .313  | 24 | 5  |
| 83  | 83ONIONS             | .263  | 86 | 15 |
| 84  | 84CELERY             | .343  | 90 | 15 |
| 85  | 85PEARS              | .333  | 90 | 15 |
| 86  | 86PLUMS              | .293  | 90 | 20 |
| 87  | 87GRAPEFRUIT         | .313  | 25 | 25 |
| 88  | 88SQUASH             | .243  | 90 | 15 |
| 89  | 89PUMPKIN            | .043  | 90 | 15 |
| 90  | 90OKRA               | .593  | 90 | 15 |
| 91  | 91TIDE DETERGENT     | 1.234 | 86 | 15 |
| 92  | 92CASCADE            | .494  | 99 | 15 |
| 93  | 93JOY DISH WNG. DTG. | .834  | 98 | 14 |
| 94  | 94AJAX DETERGENT     | .894  | 99 | 15 |
| 95  | 95DOWNY SOFTENER     | 1.574 | 99 | 15 |
| 96  | 96CLOROX BLEACH      | .354  | 98 | 15 |
| 97  | 97TIDE DETERGNT      | .494  | 89 | 15 |
| 98  | 98PAPER TOWELS       | .394  | 88 | 15 |
| 99  | 99KLEENEX            | .334  | 81 | 15 |
| 100 | 100PLAYBOY MAG       | 1.004 | 82 | 15 |

BASIC\*DP5003A.STORE

1 \*XQT DP5003A.STORE  
2 \*ADD DP5003A.STORE DATA

## BASIC\*SHH.STORE/SOURCE

```

1      @ASG,T TEMP,F14///128
2      @BRKPT PRINTS/TEMP
3      @ASG,T 9,F14///128
4      @ASG,T 10,F14///128
5      @ASH,I ,ADD
6      AXRS
7      S(0)
8      PF FORM 12,6,18
9      CSF1 '0COPY,I 9.,DPS003A.STORED DATA'
10     CSF2 '0BRKPT PRINTS/TEMP'
11     CSF3 '0BRKPT PRINTS '
12     CSF4 '0ADD TEMP.'
13     S(1)
14     ADD* LA AO,(3,CSF2)
15     ER CSF5
16     PSRINT (PF 1,5,CSF1)
17     LA AO,(3,CSF3)
18     ER CSF5
19     LA AO,(2,CSF4)
20     ER CSF5
21     J 1,X11
22     END
23     @ASH,E BASIC*DPS003A.DATE/00RNLN1K,DATE
24     @ASH,E BASIC*DPS003A.DECOCT/00RNLN1K,DECOCT
25     @RFOR,IS STORE,STORE
26     INTEGER DEPT(1000),ID(1000,3),INV(1000),CUST,REORD(100

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0), REFNO,TA

```

27     CG(4),ACCNT
28     REAL PRICE(1000),NET,TOTLK(150),CHRG(10)
29     CALL DATE(1MO,1DY,1YR)
30     IR=0
31     TAG(1)='GR'
32     TAG(2)='MT'
33     TAG(3)='PR'
34     TAG(4)='WF'
35     TOTLC=0
36     CUST=0
37     SALE=0
38     TTAX=0
39     TONG=0
40     CPNTTL=0
41     REFUND=0
42     REFNO=0
43     RES=1000.
44     DO 10 I=1,100
45     10  HEAD(5,15)(ID(I,J),J=1,3),PRICE(I),DEPT(I),INV(I),REOR

```

D(I)

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46     15  FORMAT(3X,3A6,F4.2,11,214)
47     5    WRITE(6,22)
48     22  FORMAT(1H0,'UNIVAC DISCOUNT FOODS'/1H , 'DEPT ITEM',6X,

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'ITEM',6X,'P

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49      CRICE')
50      20  READ(5,25)ITEM,VT
51      25  FORMAT(14,4X,F5.2)
52      I2=DEPT(ITEM)
53      IF(ITEM.EQ.1)GO TO 100
54      PRC=PRICE(ITEM)
55      IF(ITEM.EQ.3)GO TO 80
56      IF(IR)35,35,50
57      30  TOTLC=0
58      TTLNF=0
59      GO TO 5
60      35  IF(ITEM-2)37,36,37
61      36  IR=1
62      GO TO 56
63      37  IF(INV(ITEM))1000,1000,41
64      1000 WRITE(6,1001)
65      1001 FORMAT(1H,'SORRY, WE ARE OUT OF')
66      GO TO 39
67      41  IF(DEPT(ITEM).NE.4)GO TO 38
68      TTLNF=TTLNF+PRC
69      GO TO 42
70      38  IF(DEPT(ITEM)-1)45,45,46
71      46  PRC=PRC*VT
72      IF(DEPT(ITEM)-3)45,44,45
73      44  INV(ITEM)=INV(ITEM)-VT
74      TOTLC=TOTLC+PRC
75      GO TO 39
76      45  TOTLC=TOTLC+PRC
77      42  INV(ITEM)=INV(ITEM)-1
78      39  WRITE(6,40)TAG(I2),ITEM,(ID(ITEM,J),J=1,3),PRC
79      40  FORMAT(1H,A3,2X,I3,2X,3A6,5X,'S',F7.2)
80      GO TO 20
81      50  IF(DEPT(ITEM).NE.4)GO TO 51
82      TTLNF=TTLNF-PRC
83      GO TO 54
84      51  IF(DEPT(ITEM)-1)54,54,53
85      53  PRC=PRICE(ITEM)*VT
86      54  TOTLC=TOTLC-PRC
87      REFUND=REFUND+PRC
88      REFNO=REFNO+1
89      IR=0
90      GO TO 39
91      56  WRITE(6,55)
92      55  FORMAT(1H,'THE FOLLOWING ITEM IS REFUNDED.')
93      GO TO 80
94      80  TAX=(TTLNF*.06)+(TOTLC*.03)
95      TTAX=TTAX+TAX
96      WRITE(6,85)TAX
97      85  FORMAT(1H,8X,'TAX',10X,'S',3X,F7.2)
98      TOTLC=TOTLC+TAX+TTLNF
99      SALE=SALE+TOTLC
100     WRITE(6,90)TOTLC
101     90  FORMAT(1H,8X,'TOTAL',8X,'S',F8.2)
102     551 WRITE(6,521)
103     521 FORMAT(' AMT TENDERED?')
104     READ(5,91)AMTND,COUPON,ACCNT

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105      IF(AMTND-LT-TOTALC)GO TO 551
106      91  FORMAT(F7.2,1X,F3.2,1X,12)
107      CPNTTL=CPNTTL+COUPON
108      IF(ACCNT)93,93,42
109      92  AMTND=TOTLC
110      CHRG(ACCNT)=CHRG(ACCNT)+TOTLC
111      93  CHFC=AMTND-(TOTLC-COUPON)
112      TCNG=TCNG+CHNG
113      WRITE(6,95)AMTND,COUPON,CHNG,IMO,1DY,1YR
114      95  FORMAT(1H,8X,'AMT TENDERED $',3X,F7.2,/1H,8X,'COUPON
      ',7X,'$',3X,
115      CF5.2,/1H,8X,'CHANGE ',6X,'$',3X,F7.2/1H,7X,12,2('/',
      12),/1H,8X,
116      C'THANK YOU'////)
117      CUST=CUST+1
118      TOTLK(CUST)=TOTLC
119      GO TO 30
120      100 WRITE(6,101)
121      101 FORMAT(1H,110,'CLOSING TOTALS'//1H,'THE FOLLOWING IT
      EMS SHOULD B
122      CE REORDERED'/1H,'ITEM',8X,'PRODUCT',5X,'NO IN STOCK')
123      DO 105 I=4,100
124      IF(INV(I)-REORD(I))102,102,105
125      102 WRITE(6,103)I,(ID(I,J),J=1,3),INV(I)
126      105 CONTINUE
127      103 FORMAT(1H,14,8X,3A6,4X,14)
128      NET=SALE-TTAX
129      REG=REG+(SALE-CPNTTL-TCNG)
130      WRITE(6,110)CUST,SALE,TTAX,NET,REFNO,REFUND,CPNTTL,REG
      ,(1,TOTLK(1)
131      C,I=1,CUST)
132      110 FORMAT(1H,'TOTALS FOR TODAY'/1H,'CUSTOMERS ',14/1H,
      'GROSS $',F7
133      C.2/1H,'TAXES $',F7.2/1H,'NET',3X,'$',F7.2,/1H,13,1X

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      , 'REFUNDS TO
134      CTALLING S', F6.2/IN , 'COUPONS S', F5.2/IN , 'CASH IN REGI
      STER S'
135      C, F6.2//IN , 'CUST TOTAL', 15Q(/IN , 13, 1X, F5.2))
136      DO 120 I=1, 100
137      120 WRITE(9, 125) I, (ID(I, J), J=1, 3), PRICE(I), DEPT(I), INV(I),
      REORD(I)
138      125 FORMAT(13, 3A6, F4.2, 11, 2I4)
139      DO 130 I=1, 10
140      130 WRITE(10, 128) I, CHRG(I)
141      132 FORMAT(12, F6.2)
142      END FILE 9
143      END FILE 10
144      CALL ADD
145      END
146      CHAP, INO , STORE
147      IN ADD
148      IN STORE
149      IN DATE
150      IN DECOCT
151      @BRKPT PRINTS
152      @XQT STORE
153      @ADD BASIC@DP5003A.STORED DATA

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